

AMENDMENTS TO THE CLAIMS

1. (Currently Amended) A synchronization signal detection apparatus characterized by comprising:

synchronization signal detection means for inputting a signal formed by a frame in accordance with a predetermined format to detect a synchronization signal to be inserted into said frame,

interpolation means for interpolating a synchronization signal generated according to detection timing of said synchronization signal detected by said synchronization signal detection means as a reproducing synchronization signal when said synchronization signal detection means is unable to detect any synchronization signal within a predetermined detection period,

judgment means for performing judgment about whether said synchronization signal continuously detected by said synchronization signal detection means is at normal timing or not under a predetermined condition after a start of the interpolation of said synchronization signal by said interpolation means,

forward guard counter means for measuring a duration during which the synchronization signal detection means is unable to detect any synchronization signal within the predetermined detection period, and

resynchronization means for outputting said synchronization signal detected by said synchronization signal detection means as a reproducing synchronization signal according to a judgment result of said judgment means or when the duration measured by said forward guard counter means exceeds a predetermined time period.

2. (Currently Amended) The synchronization signal detection apparatus as described in claim 1, characterized in that:

said judgment means is configured to perform judgment about whether each of said synchronization signal is at normal timing or not, by measuring an interval of detection timing of said synchronization signal continuously detected by said synchronization signal detection means, and by performing judgment about whether said interval of detection timing coincides with a predetermined interval and a predetermined times or more in accordance with an input signal format.

3. (Currently Amended) A synchronization signal detection method characterized by comprising the steps of executing:

a synchronization signal detection process for inputting a signal formed by a frame in accordance with a predetermined format to detect a synchronization signal to be inserted into the frame,

an interpolation process for interpolating a synchronization signal generated according to detection timing of the synchronization signal detected by the synchronization signal detection process as a reproducing synchronization signal when no synchronization signal has been able to be detected within a predetermined detection period by the synchronization signal detection process,

a judgment process for performing judgment about whether the synchronization signal continuously detected by the synchronization signal detection process is at normal timing or not under a predetermined condition after a start of the interpolation of the synchronization signal by the interpolation process,

a forward guard counter process for measuring a duration during which no synchronization signal has been able to be detected within the predetermined detection period by the synchronization signal detection process, and

resynchronization process for outputting the synchronization signal detected by the synchronization signal detection process as the reproducing synchronization signal according to a judgment result of the judgment process or when the duration measured by said forward guard counter process exceeds a predetermined time period.